Further records of such out of season insects, in all Orders, are invited for future compilations. It will not escape the notice of the reader that all the records listed to date are from the south-east of the country. Is this truly a reflection of reality? – COLIN W. PLANT, 14 West Road, Bishops Stortford, Hertfordshire CM23 3QP (E-mail: Colinwlant@ntlworld.com).

Comments on supposedly earlier flight periods of spring moths

I suspect that the Editor would be disappointed were there no response to his request for comments on the reports of increasingly early records for the spring *Orthosia* species and indeed any other moths (*antea*: 66-68). The general assumption is that this trend reflects and thereby confirms the influence of global warming.

However, there are several problems with this interpretation. First, even if it is true that the very first individuals are emerging earlier, this does not necessarily imply that the median flight period of the brood as a whole has changed. Most individuals could still be emerging at their usual time. It is rash to predict the shape of the bell curve of emergence from a single point at its extreme beginning. Secondly, sampling errors can easily play a large part at the beginning of the curve. In years when the population is large, the bell curve will be higher and wider, so that the first individuals are out earlier. Also, the higher the numbers, the greater the chance of an observer catching one. By contrast, in a year when the population is low no individuals might be captured until nearer the peak of the flight period.

Thus, for convincing evidence that species are emerging earlier, we really need to compare graphs or histograms of the whole flight period over a series of years, rather than going merely by first or last dates.

It was brought home to me how misleading "first dates" can be during a sallowing session in Ashcombe Bottom near Lewes in East Sussex on 31.iii.1989. Nectaring on the golden catkins was a Scorched Carpet *Ligdia adustata,* making a delightful picture. Nor was it the only one that night, for I netted a couple more. The weather then turned cooler, and I did not see another until well into May. Did that make 1989 an early year for the Scorched Carpet? The main emergence was, if anything, slightly later than normal.

The occasional examples of the Common Quaker *Orthosia cerasi* that emerge in Autumn (Goodey, *antea*: 35; Hall, *antea*: 68) are surely a different case, but very interesting. If the habit became more frequent it might well lead to the rapid evolution of a new species, assuming the autumn and spring moths never had the opportunity to interbreed. There are some pairs of species which, we might surmise, arose in just such a way. Examples include the autumn-flying Scarce Umber *Agriopis aurantiaria* and its spring counterpart the Dotted Border *A. marginaria,* likewise The Streak *Chesias legatella* and the Broom-tip *C. rufata.* Alternatively, as the Common Quaker (like all *Orthosia* species) overwinters as a fully formed moth within the pupal case, perhaps the occasional autumn emergence is a relic of its ancestral habit and spring emergence the (relatively) recent development.– ROY LEVERTON, Whitewells, Ordiquhill, Cornhill, Banffshire AB45 2HS.